of other "supplemental" liabilities attributable to certain factors. 19/ The normal cost is that portion of pension obligations that is attributable to a worker's service in a given year, and is the cost determined by the actuarial funding method used by the plan.

Employers are allowed to amortize the other type of pension costs, termed the "supplemental liabilities" of the plan. These costs include:

- o Additions to benefits provided by the granting of credits for past service. These benefits often are provided by new or replacement pension plans for service before the plan began.

- o Liabilities created by amendments to the plan. These added costs are the result of changes in existing pension agreements, such as ad hoc cost-of-living adjustments in benefits.

- o Gains or losses resulting from changes in actuarial assumptions or from adjustments made to reflect the actual experience of the pension plan.

- o Changes in the pension liability of a plan that is integrated with Social Security, when the changes are attributable to modifications in Social Security benefits or covered wages.

The time period over which these costs can be amortized depends on when the liability was incurred and on the nature of the change. Actuarial liabilities that existed before 1974 can be amortized over 40 years. Most other changes arising thereafter can be amortized over 30 years; changes resulting from variations in the experience of the plan can be amortized over 15 years.

Under federal rules, each pension plan is required to maintain a special account, called a funding standard account, that provides a cumulative comparison between actual contributions and those required to pay normal and supplemental costs. If contributions to the plan exactly meet federal minimum standards, then the account balance is zero. Plans with negative balances--indicating contributions less than the required minimum--are assessed an excise tax on the account deficiency, with the rate of that tax

19. Employers are allowed to use any of six actuarial funding methods to allocate pension costs. In reporting pension expenses on their financial statements, however, the accounting community soon will allow the use of only one of these methods--the projected unit credit method. See Financial Accounting Standards Board, *Statement of Financial Accounting Standards No. 87: Employers' Accounting for Pensions* (Stamford, Conn.: FASB, December 1985).

rising sharply over time if the balance is not reduced. 20/ Positive balances in this account can be used to reduce future pension contributions.

Under certain conditions, a sponsor can receive from the IRS a waiver of its minimum funding obligation, thereby allowing it to spread a given annual payment over 15 years. This waiver can be obtained if payment of the pension obligation would cause the employer a substantial business hardship, or if enforcement of the minimum funding requirement would not be in the best interest of pension participants. 21/ In 1986, the IRS was given explicit authority to require security on waived pension contributions. This feature is designed to ensure that while the timing of the pension contribution may be delayed, the pension plan ultimately will receive the required contribution.

Factors Influencing the Financial Status of Pension Plans

The financial status of a pension plan (also called its funding status) is determined by comparing the plan's assets with the present value of its current and expected future costs of benefits. In 1986, private pensions managed by a trustee held 44 percent of their assets in equities, 24 percent in government and corporate bonds, 13 percent in cash items, and 20 percent in other assets. 22/

The value of a plan's liabilities, and therefore its overall funding status, can be determined either by assuming that the plan will continue in operation into the future, or by assuming that it will terminate today (the method known as termination valuation). Unless the pension is scheduled to terminate, the actuarial funding method used by the plan to allocate pension

20. The excise tax, which is deposited in the U.S. Treasury, initially is 5 percent of the account deficiency and rises to 100 percent if the deficiency is not paid off within a limited period. See McGill, *Fundamentals of Private Pensions*, p. 376.

21. The factors that are taken into account in determining business hardship include whether or not (1) the employer is operating at an economic loss, (2) there is substantial unemployment or underemployment in the trade or business and in the industry concerned, (3) the sales and profits of the industry are depressed or declining, and (4) it is reasonable to expect that the plan will be continued only if the waiver is granted. Unfortunately, few data are available on the amounts of waivers granted in past years or on the circumstances surrounding those waivers.

22. Cash items include demand deposits, short-term credit market instruments, and certificates of deposit. Other assets include real estate, mortgages, receivables, and other financial and nonfinancial assets. Pooled funds are reported under all four asset categories according to their reported asset allocations. See Employee Benefit Research Institute, *EBRI Quarterly Pension Investment Report*, Fourth Quarter 1986 (April 1987), p. 79.

costs to particular years includes expected future costs as a component of total plan costs. The termination valuation, on the other hand, calculates liabilities assuming the plan will not continue to operate. Under this method, no account is taken of potential future salary increases or of additional years of service by participants. All workers' benefit rights are assumed to vest immediately, and all future retirements are assumed to occur at the plan's expected retirement age. 23/ This calculation forms the basis for determining the sponsor's liability to the pension plan if it is terminated. 24/

Questions about the funding levels of pension plans are usually more relevant to termination valuations than to calculations that assume the plan will continue in operation. If a sponsor has made all required contributions--implying, therefore, that the plan's funding standard account has a non-negative balance--then the plan generally is on schedule to meet its ultimate financial obligations. This does not mean, however, that if the plan is terminated, there would be sufficient assets on hand to cover liabilities accrued to date. For this determination, the termination valuation of the plan would be used.

Pensions can meet legal funding obligations and still be underfunded on a termination basis, for a number of reasons. Most of these reasons relate to the creation of supplemental liabilities, as discussed above, and include obligations arising from the granting of credits for past service, liabilities created by plan amendments, and actuarial losses resulting from the economic and demographic experiences of the plan. Because these supplemental liabilities can be amortized over periods of up to 15 to 30 years, a plan can be underfunded on a termination basis in the interim.

Actuarial funding methods, which smooth out pension contributions over a worker's period of employment, can work in the opposite direction, however, reducing a plan's underfunding or increasing its overfunding. Employers' contributions in the early years of service that exceed benefit accruals can generate asset levels in the plan that are larger than its termination liability, even if these contributions are consistent with overall funding of the pension.

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23. According to ERISA, all previously nonvested accrued benefits become vested immediately upon termination of the plan. While benefits vested solely because of the termination are a liability of the plan's sponsor, they are not guaranteed by the pension insurance program, as discussed in the next chapter.

24. The termination liability of a pension plan may be larger or smaller than the ongoing liability. The result depends on how the added cost associated with the vesting of benefits that might otherwise have been forfeited compares with reductions in cost resulting from the elimination of early retirement and of future increases in salary and tenure.

CHAPTER III

FEDERAL INSURANCE OF BENEFITS IN SINGLE-EMPLOYER DEFINED-BENEFIT PENSION PLANS

As part of a broader effort to protect and enhance workers' pension benefits, the Congress in 1974 created a federal program of mandatory pension insurance to be operated by the Pension Benefit Guaranty Corporation (PBGC). The purpose of this agency within the Department of Labor is to insure participants in defined-benefit private pension plans against the loss of certain benefits if their plans terminate without sufficient assets. 1/

The original law set up a fund to pay for this insurance protection by charging an annual premium of $1 per pension participant, and also gave the PBGC the authority to recover up to 30 percent of a plan sponsor's net worth to cover unfunded insured benefits. 2/ Plan sponsors were allowed to terminate pensions whether or not they were adequately funded so long as that termination did not violate contracts with their employees.

The financial experience of the federal pension insurance program has not been good, however, and over the years the PBGC itself has accumulated a large and growing deficit. Consider the discounted present value of pension liabilities assumed by the PBGC--that is, the amount of money needed today so that, together with the interest that would accumulate, it would be sufficient to pay current and future liabilities when due. By the

1. The PBGC operates two insurance programs for private pensions. One program is for single-employer defined-benefit plans, and the other is for collectively bargained multiemployer plans. The two programs are distinct, with separate financial structures and different operational and analytical issues. The multiemployer program is in better financial condition than the single-employer one, having a balance-sheet surplus and little prospect of deterioration in the immediate future. This analysis is restricted to the insurance program for single-employer plans, as discussed in Chapter II.

2. Pension participants include workers accruing benefits, retired workers collecting benefits, terminated workers with vested benefit rights, and deceased participants whose survivors are eligible for benefits.

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end of fiscal year 1986, these liabilities had reached $7.4 billion, while assets amounted to only about $3.6 billion. 3/

In recent months, the Congress has made a number of changes in federal pension policies, including several modifications in the pension insurance program. Effective in January 1986, the Congress increased to $8.50 the annual premium charged on behalf of participants in insured private pensions. It also tightened the conditions under which sponsors may terminate underfunded pensions and increased the potential maximum liability of sponsors for unfunded guaranteed benefits in their plans.

This chapter describes the current operation of the federal insurance programs for single-employer pension plans, including the role of the PBGC in the termination of private pensions, and the financial structure and budgetary treatment of the PBGC. The next chapter examines in more detail the financial experiences of the PBGC and discusses what is known about its potential future obligations.

PENSION PLAN TERMINATION AND THE PBGC

Termination of a pension plan ends benefit accruals by participants and eliminates further contributions by the plan's sponsor. Employers may choose whether or not to replace the terminated pension with another plan. In recent years, some employers who terminated defined-benefit plans have replaced them with defined-contribution plans, thereby limiting their liability in the new plan to current payments and making the new pension accruals more portable for workers.

Employers with pensions that are sufficiently funded on a termination basis have always been permitted by ERISA to terminate those plans. Once the PBGC determines that a plan is sufficiently funded, the sponsor simply buys annuities for--or provides lump-sum payments to--eligible participants and ceases further involvement in the plan. All benefits vested before the plan terminates must be paid by its sponsor, plus any other accrued benefits to the extent that assets of the plan are available. 4/ If, after paying all

3. Although ERISA provides that the federal government is not liable for any obligation or liability incurred by the PBGC, the agency can borrow up to $100 million from the U.S. Treasury, and some of its financial transactions are reflected in the federal budget.

4. Previously nonvested accrued pension benefits are vested immediately upon termination of the pension plan. When a sufficiently funded pension is terminated, however, sponsors are only required to pay these newly vested benefits to the extent that plan assets are available.

accrued benefits, excess funds remain in the plan, those funds may revert to the sponsor as taxable business income or be distributed among participants, depending on the plan. 5/

Before passage of the Single-Employer Pension Plan Amendments Act of 1986 (SEPPAA), employers with underfunded plans also were able to terminate those plans by agreeing to pay the PBGC up to 30 percent of their net worth toward unfunded guaranteed benefits. 6/ Under SEPPAA, however, these employers now can terminate underfunded plans only under more limited conditions regarding their financial status. A sponsor must meet at least one of the following criteria to qualify for a so-called "distress termination" of an underfunded plan. The sponsor must:

- Be in bankruptcy liquidation;
- Be in bankruptcy reorganization with court approval of the termination;
- Be unable to pay debts when due or to continue in business without the plan's termination; or
- Face unreasonably burdensome pension costs attributable solely to a declining work force. 7/

Thus, the Congress has changed the "insured event" in pension benefit insurance from simple termination of the plan, which in many cases is under the direct control of the plan's sponsor, to bankruptcy or severe financial distress of the plan's sponsor.

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5. Effective in 1986, sponsors also must pay an excise tax of 10 percent of any assets that revert to them. Between 1980 and 1986, there were 1,338 terminations of pension plans that resulted in reversions of $1 million or more each. The total dollar amount of these reversions was nearly $16 billion. For a discussion of these so-called asset reversions by sponsors see, for example, Richard A. Ippolito, *Pensions, Economics and Public Policy*, (Homewood, Ill.: Dow Jones-Irwin, for the Pension Research Council, 1986); and General Accounting Office, *Pension Plans: Government Data on Terminations with Excess Assets Should be Improved* (November 1986).

6. This act is Title XI of the Consolidated Omnibus Budget Reconciliation Act of 1985, Public Law 99-272.

7. With court approval, the PBGC also can initiate the involuntary termination of a plan if the plan is unable to pay benefits when due, if the sponsor has failed to satisfy the minimum funding requirements, or if certain other conditions exist.

Once the PBGC determines that an underfunded plan qualifies for a distress termination, the agency becomes trustee of that plan. The PBGC takes over all assets in the plan, assumes liability for all insured benefits, and begins making monthly payments to the plan's beneficiaries. Federally insured benefits are defined by statute and by the PBGC to consist of all normal retirement benefits that are payable in level monthly installments for the remaining life of the participant, so long as he or she was vested before the plan terminated, plus any death, survivor, or disability benefits that were in payment status when the plan terminated. This definition excludes lump-sum benefits and supplemental monthly benefits designed to encourage early retirement; it also excludes benefits vested solely because the plan terminated.

Federally guaranteed benefits also are limited by ERISA in two other ways. First, benefits generally are not fully insured until they have been in effect for at least five years. Under this provision, which affects both plans created in the last five years and any modifications to previously existing plans that occurred during the last five years, only the prorated share of these newly created benefits is federally insured. 8/ Second, ERISA imposes an upper limit on the level of insured benefits for any participant. This limit is $1,858 per month in 1987 for a life annuity payable beginning at the normal retirement age in the plan and is indexed to the Social Security wage base. The limit is determined at the date of the plan's termination, regardless of when the participant actually receives benefits. The limit on monthly guaranteed benefits is reduced actuarily for workers who start to receive benefits before the normal age of retirement.

When the PBGC takes trusteeship of a terminated plan, it can also make a claim against the plan's sponsor for the unfunded guaranteed benefits. SEPPAA increased the maximum liability of the sponsor from 30 percent of the sponsor's net worth--the limit originally imposed by ERISA--to a potentially higher level. The new liability is for the full amount of unfunded guaranteed benefits up to 30 percent of net worth, and for 75 percent of unfunded guaranteed benefits in excess of 30 percent of net worth.

The recovery by the PBGC of assets from the plan's sponsor is determined in many instances by the nature and amounts of claims made by the sponsor's other creditors. Regardless of its success in collecting funds from the sponsor, however, the pension insurance agency continues to provide payments to all insured workers.

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8. In general, 20 percent of benefits newly granted one year before the plan was terminated are guaranteed, 40 percent of benefits newly granted two years before termination are guaranteed, and so forth.

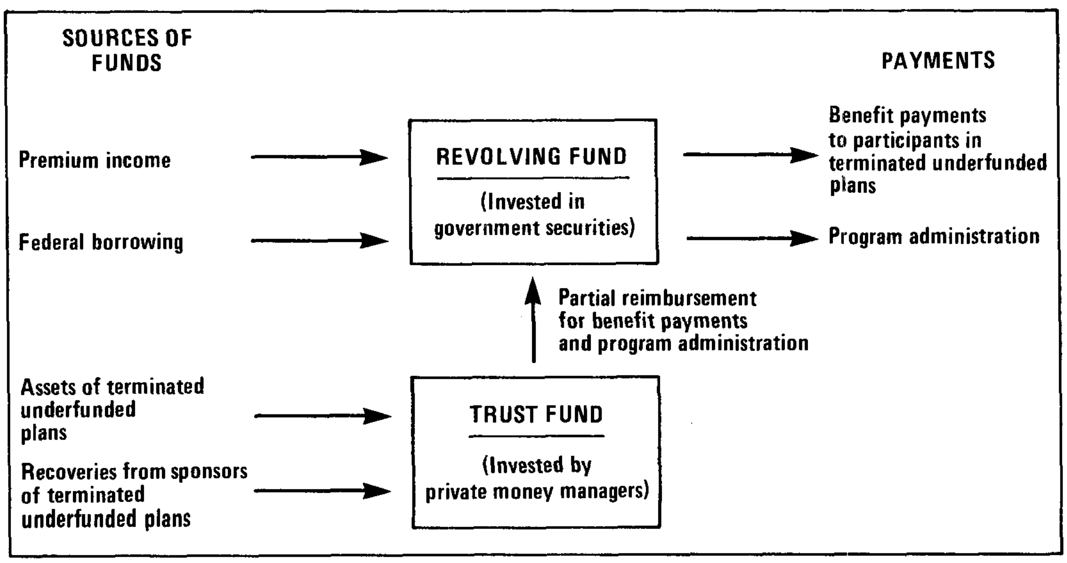
THE FINANCIAL STRUCTURE AND BUDGETARY TREATMENT OF THE PBGC

The federal pension insurance program is financed by annual premiums paid on behalf of all participants in insured plans, the assets in terminated underfunded plans, and any funds recovered from the sponsors of these plans. The annual insurance premium is $8.50 per participant, having been increased from $1.00 to $2.60 in 1978, and to $8.50 effective in January 1986. This revenue is used to pay benefits to participants in underfunded terminated plans and to finance the operation of the program.

The Financial Structure of the PBGC

As shown in Figure 2, the financial structure of the PBGC involves two funds: a revolving fund that is used to pay benefits and operating expenses and to collect premiums; and a trust fund that is used as a depository for assets from terminated underfunded plans and for funds recovered from their sponsors.

Figure 2.
Financial Structure of the Pension Benefit Guaranty Corporation



SOURCE: Congressional Budget Office.

The Revolving Fund. Outlays of the pension insurance program are made from the revolving fund. In fiscal year 1986, payments of about $260 million were made from this fund to 90,750 beneficiaries of plans in trust with the PBGC. Expenses for administration of the PBGC totaled $33 million in that year.

Sources of revenue for the revolving fund include premium payments on behalf of participants in insured plans, money that is transferred from the pension insurance trust fund, investment returns on fund balances, and, potentially, a loan from the federal Treasury. Premium receipts totaled about $200 million in 1986.

Annual transfers from the insurance trust fund are determined by the funding status of the PBGC. In particular, the transfer from the trust fund to the revolving fund is equal to the same percentage of benefit payments as the program is funded. This allocation of spending between the trust fund and the revolving fund assures that some assets will remain in the trust fund to pay a portion of all future program liabilities.

The remaining source of revenue to the revolving fund is the U.S. Treasury, from which the PBGC has the authority to borrow up to $100 million. 9/ Balances in the revolving fund are invested in U.S. government securities, and investment income is retained in that fund.

The Trust Fund. The pension insurance program also operates a trust fund. As explained above, a portion of the balance in this fund is transferred to the revolving fund to pay for a share of insured benefits and program operating expenses.

Revenues to the trust fund include the assets of underfunded plans that terminate and are taken over by the PBGC, funds recovered from sponsors of these plans, and investment returns on fund balances. Trust fund balances, which totaled $3.2 billion at the end of fiscal year 1986, are held in stocks, bonds, and other investments, and are invested for the PBGC by several private investment companies.

Federal Budgetary Treatment of the PBGC

Since 1981, a portion of the financial transactions of the PBGC has been included in the federal budget. 10/ Benefit payments to participants in

9. This borrowing authority has been used only one time. In 1974, the PBGC borrowed $100,000 to pay for its start-up costs. This loan was repaid with receipts from the first premium payments from covered plans.

10. The Multiemployer Pension Plan Amendments Act of 1980 (Public Law 96-364) required that the finances of the PBGC be included in the federal budget starting with fiscal year 1981.

plans under the PBGC's trusteeship, plus administrative expenses of the PBGC, are counted as federal outlays. But certain receipts of the agency--including premium payments, interest on balances in the revolving fund, and transfers to the revolving fund from the trust fund--offset PBGC expenses in the federal budget. This "cash-flow" view of the PBGC does not take account, however, of liabilities for future benefit payments and other accruals. A more detailed look at the broader financial condition of the pension insurance agency is presented in the next chapter.

CHAPTER IV

THE FINANCIAL STATUS OF THE PBGC

Given the complex nature of private pension finance and the dynamics of industrial change in the economy, it is perhaps not surprising that pension plans occasionally terminate with insufficient funds to pay all of their accrued benefits. For reasons such as the granting of credits for past service, amendments to plans increasing or extending benefits, and unexpected events such as poor investment performance, some plans that satisfy all legal funding obligations before termination are underfunded. In addition, firms in financial distress might request from the Internal Revenue Service a waiver of their required pension contribution for a given year, thereby potentially adding to any existing funding problems of their plan.

In the decade or so since the federal pension insurance program was begun, only a small fraction of terminated plans have been underfunded, but the claims against the PBGC for unfunded guaranteed pension benefits have grown rapidly. As a result, the agency has amassed a large and growing funding shortfall. This chapter examines the current financial position of the PBGC, explores its financial history, and considers the prospects for the future. The final chapter analyzes issues confronting the pension insurance program and considers options for dealing with them.

THE CURRENT FINANCIAL PICTURE

In the approximately 12 years of program activity through the end of fiscal year 1986, the federal pension insurance program accumulated a financial deficit of $3.8 billion. 1/ This deficit represents the difference between the program's assets of $3.6 billion and its liabilities of $7.4 billion. Assets of the PBGC represent past premium receipts and funds derived from plan terminations, less past expenses for benefit payments and administration.

1. Part of this deficit is now being contested in Bankruptcy Court and U.S. District Court. On September 22, 1987, the PBGC notified the LTV Corporation that it was restoring to that company three large underfunded pension plans that previously had been terminated and placed under the trusteeship of the PBGC. If successful, this action would reduce the PBGC's accumulated deficit by about $2 billion.

Its liabilities represent the present value of current and future guaranteed benefits owed to participants in underfunded plans that have terminated.

At the end of 1986, the pension insurance program was actually paying benefits to 90,750 participants in 1,345 plans for which it was the trustee, at a cost in that year of about $260 million. Future annuity payments also are owed to most current beneficiaries and to about 264,000 additional workers from previously terminated plans who will receive benefits in the future.

In a technical sense, the present underfunding of the pension insurance program has not caused an immediate financial problem, because most of the obligations are not payable until several years in the future. The program now has sufficient assets to make annuity payments for at least the next few years. Indeed, with the receipt of additional assets recovered from the future terminations of underfunded plans, and with the receipt of future premium payments, the pension insurance program could probably operate on a pay-as-you-go basis for several years, although the PBGC has not attempted to finance its payments on this basis in the past.

HISTORICAL DEVELOPMENT OF THE ACCUMULATED DEFICIT OF THE PBGC

The pension insurance program has added to its accumulated financial deficit in 10 of its 12 years of operation through 1986. 2/ Annual additions to the deficit have averaged just over $300 million during the history of the program, but have been substantially larger in recent years. In 1985 and 1986 alone, the PBGC accumulated 88 percent of its total financial shortfall, or about $3.4 billion (see Figure 3).

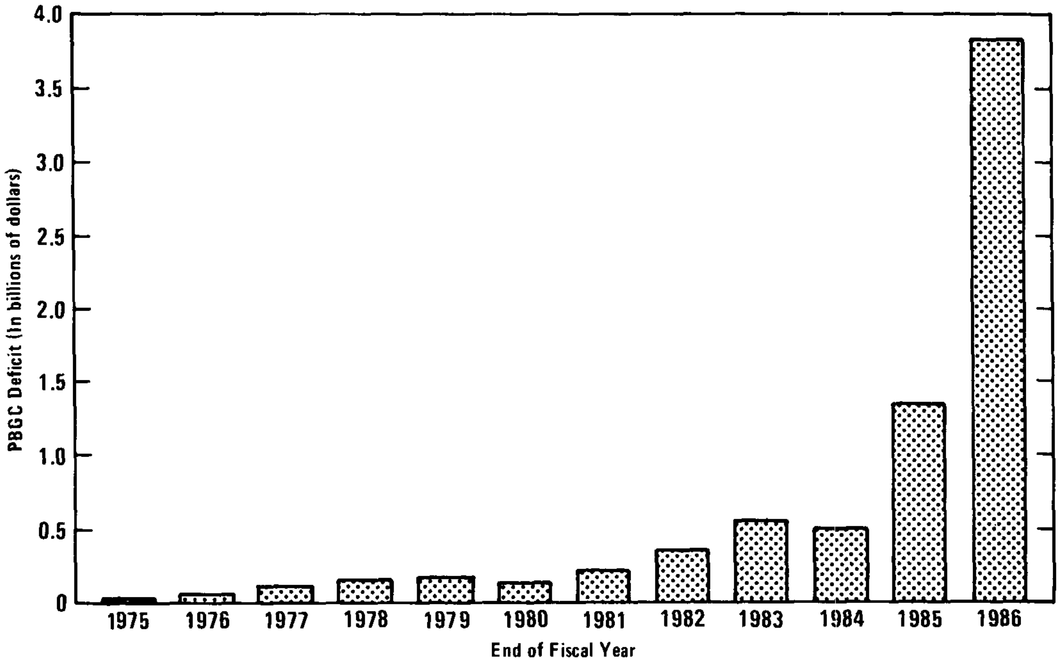
This section analyzes historical financial information on the PBGC, including past changes in its financial condition, its claims experience, and its federal budgetary history.

Past Changes in the PBGC's Financial Condition

Many factors account for the financial status of the PBGC, and changes in several of them have contributed to the decline in its financial situation (see Table 1). The largest single factor is the net new liabilities it assumed

2. Only in 1980 and 1984 did the accumulated deficit in the program fall. In those years, in addition to having relatively low net new claims, interest rates used to determine the present value of future benefit obligations were raised by one percentage point or more, resulting in relatively large reductions in the present value of existing benefit obligations.

Figure 3.
Accumulated Deficit of the Pension Benefit Guaranty Corporation, 1975–1986



SOURCE: Congressional Budget Office using data from Pension Benefit Guaranty Corporation, *Annual Report,* various years.

from terminated plans that were underfunded. The shortfall that results from these terminations is equal to the difference between the present value of guaranteed benefits in the plans and the sum of assets in the plans plus any funds recovered from their sponsors. The annual amount of this net new liability assumed by the PBGC has ranged from $26 million in 1980 to over $2.4 billion in 1986, fluctuating both with the number of terminations occurring in a given year and with the amount of underfunding in the terminating plans.

Annual changes in actuarial calculations and assumptions also have had an important impact on the agency's financial situation. Changes in the interest rate used to determine the present value of future liabilities have caused significant changes in the PBGC's financial condition. 3/ This rate--

3. The PBGC actually uses several different interest rates to calculate the present value of future benefit obligations, depending on when those obligations are payable. These rates tend to change together over time, however, so that for ease of presentation only a single rate is considered here.

TABLE 1. ACCUMULATED DEFICIT OF THE PBGC, AND COMPONENTS OF ANNUAL CHANGE, 1975 THROUGH 1986 (In millions of dollars)

	Accumulated Deficit b/		Components of Change in Accumulated Deficit a/						
				Source of Actuarial Charges			Income		
Fiscal Year	End of Year	Change from Prior Year	Net New Liability c/	Interest Rate d/	Other e/	Administrative Expense	Premium	Investment f/	Interest Rate g/ (percent)
1975	-15.7	-15.7	n.a.	n.a.	n.a.	-2.8	18.6	n.a.	8.00
1976	-41.0	-25.3	-52.6	n.a.	0.5	-9.9	29.6	7.0	7.00
1977	-95.3	-54.3	-72.2	n.a.	-0.8	-12.0	25.1	5.7	6.75
1978	-137.8	-42.5	-63.6	n.a.	-21.9	-14.0	47.4	9.5	7.25
1979	-146.4	-8.6	-66.0	17.5	-29.5	-15.8	69.7	15.5	7.75
1980	-94.6	51.8	-26.3	43.0	-39.0	-19.8	71.2	22.3	9.00
1981	-188.8	-94.2	-140.6	51.0	-54.0	-20.6	75.0	-5.4	10.25
1982	-332.8	-144.0	-202.9	6.0	-99.0	-24.2	79.6	96.2	10.50
1983	-523.3	-190.5	-167.4	-113.8	-151.9	-27.2	81.5	188.3	9.50
1984	-462.0	61.3	-41.7	159.8	-136.6	-30.3	80.5	29.7	10.50
1985	-1,325.3	-863.3	-657.9	-196.0	-187.2	-33.2	81.7	129.3	9.25
1986	-3,826.4	-2,501.1	-2,406.7	-435.4	-88.9	-33.2	201.4	261.7	7.75

SOURCE: Congressional Budget Office using data from Pension Benefit Guaranty Corporation, *Annual Report*, various years.

NOTES: Benefit payments by the PBGC on behalf of trusteed plans reduce both its assets and liabilities, and thus have no net effect on the accumulated deficit of the program. (n.a. = not available.)

a. Positive numbers represent increases in assets or decreases in liabilities; negative numbers represent decreases in assets or increases in liabilities.

b. Equal to the market value of assets minus the present value of program liabilities.

c. The present value of guaranteed benefits of newly terminating plans, less plan assets and employer payments.

d. Actuarial charges resulting from changes in the interest rate used to calculate the present value of guaranteed future benefits.

e. Actuarial charges stemming from causes other than changes in interest rates, including increases in the present value of benefit liabilities caused by the passage of time (see text). For fiscal years 1976-1978, this column represents total actuarial charges.

f. Investment income includes realized and unrealized changes in the value of assets.

g. The interest rate used to determine the present value of immediate annuities to be paid by the PBGC; comparable changes occurred for rates used to value deferred annuities.